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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/464,637      | 12/15/1999  | ANTHONY FUNG         | (850063.564)        | 7886             |

30423 7590 03/09/2007  
STMICROELECTRONICS, INC.  
MAIL STATION 2346  
1310 ELECTRONICS DRIVE  
CARROLLTON, TX 75006

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| EXAMINER |
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LONSBERRY, HUNTER B

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/09/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

09/464,637

Applicant(s)

FUNG ET AL.

Examiner

Hunter B. Lonsberry

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-17 and 51-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7-17 and 51-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments, see amendment, filed 6/8/05, with respect to the rejection(s) of claim(s) 7-17 and 51-59 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the DAVIC Cable Modem specification.

The examiner has replaced the several Official Notices taken in the previous Office Action with citations from the DAVIC Cable Modem specification. In addition support for a centralized error handling state, can be found in the DAVIC Cable Modem specification on pages 71-71, 91, and 99-101.

Applicant's failure to traverse the Official Notice taken in the previous Office Action, is taken as admission of prior art.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 7-17, and 51-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cable Modem Telephony Return Interface Specification in view of Operations Support System Interface Specification and DAVIC Cable Modem Specification.

Regarding claim 7, CMTRIS discloses a network station manager for a cable modem network station (figure 3-2, page 29) comprising:

a management task component configured to initialize the network station (when restarted) and to maintain connectivity of the network station with a cable network (figure 3-2), the management task component comprising a state machine configured to communicate with a plurality of task components (DHCP, TFTP, SNMP).

Additionally, CMTRIS discloses in figure 3-2, a number of states, wherein the state machine comprises an error handling state and peripheral states comprising an initialization state (start), a start dynamic-host-configuration protocol state (DHCP query), a configuration-download state (TFTP configuration profile), a start simple-network-management protocol state (generate SNMP alert via PPP), and an operational state (DONE), the cable modem may receive OSSI messages (figure 1-2, page 4), errors may be monitored (page 26, figure 3-1).

CMTRIS does not disclose an operational state configured to monitor for error messages and other messages communicated from other states and to communicate the error messages to the centralized error handling state, sending request messages

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to an Operational Support System Interface (OSSI) management task and a centralized error handling state.

The OSSI specification discloses that a management agent is run on the cable modem (page 11-13, figure 2-1), details the OSSI messaging (page 13, provisioning and management protocols).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify CMTRIS to utilize the OSSI management agent of OSSI specification, thus enabling remote administration of a cable modem.

The combination of CMTRIS and OSSI does not disclose an operational state configured to monitor for error messages and other messages communicated from other states and to communicate the error messages to the centralized error handling state.

The DAVIC Cable Modem specification discloses a centralized error handling state(pages 71-71, 91, and 99-101) which enables the network station manager to poll a number of cable modems, and monitors and reports errors from other states for the purposes of correcting them, thus enabling a device to correct errors and report problems in order to ensure that users receive their requested data.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS and OSSI to utilize the central error handling state of the DAVIC Cable Modem specification, thus enabling a device to correct errors and report problems in order to ensure that users receive their requested data.

Regarding claim 8, CMTRIS discloses the use of TFTP protocol (figure 3-2) which enables automatic downloads of data and software (page 71).

CMTRIS, OSSl and DAVIC are silent regarding responding to responding to a software upgrade message.

The examiner takes official notice that the use of a software upgrade message is notoriously well known in the art. For example, Microsoft's windows update, automatically detects what OS version a device is running and provides patches and update files to keep the OS up to date with system optimizations and security patches.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS, OSSl and DAVIC to utilize a software upgrade message thus enabling a device to be kept up to date with system optimizations and security patches.

Regarding claim 9, CMTRIS discloses a network, which utilizes OSSl.

CMTRIS, OSSl and DAVIC do not disclose utilizing an error handler which receives and error, requests error logging, initiate error recovery and if error recovery is not possible entering a dead state.

The examiner takes official notice that the use of an error handler which receives and error, request error logging, initiate error recovery and if error recovery is not possible entering a dead state is notoriously well known in the art. Error handling enables a device to detect report, and repair errors in order to enable a device to

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continue functioning, if errors can't not be fixed, a device may crash, thus entering a dead state.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS, OSSI and DAVIC to utilize an error handler, thus enables a device to detect report, repair errors or enter a dead state thus enabling a device to continue functioning unless it receives a catastrophic failure.

Regarding claims 10-11, CMTRIS discloses that an initialization state is configured to initialize an IP stack (pages 8, 29-31, establishes IP link to TRAC via PPP) enables communication between an IP stack and the MAC (page 8).

Regarding claim 12, CMTRIS discloses a start DHCP state that is configured to initiate creating and commencement of DHCP stack (page 8, 29-33).

Regarding claim 13, CMTRIS discloses a configuration download state configured to start a configuration download task (pages 29, 34-35).

Regarding claim 14, CMTRIS discloses a SNMP state (page 80).

Regarding claim 15, CMTRIS discloses a channel upstream/downstream channel state configured to change an initial upstream channel identification to match a predetermined channel identification (pages 29, 34-35).

Regarding claim 16, CMTRIS discloses that the Cable Modem utilizes a start time of day state to initiate the creation and commencement of a time of day task component (page 46, section 4.3.1). The cable modem periodically receives time messages from the CMTS and compares the time data in the TSI management messages with the previously stored value.

Regarding claim 17, CMTRIS discloses that the cable modem periodically checks the time of day by comparing its time with TSI management messages (page 46, section 4.3.1).

Regarding claim 51, CMTRIS discloses method of administering a broadband, cable modem network station for connectivity to a network (page 29, figure 3-2), the method comprising:

- initializing the network station to a predetermined set of parameters (stored PPP config, factory default procedure, which places the station in an initialization state);

- creating and starting a DHCP task (DHCP query);

- creating and starting a time-of-day task (page 46, section 4.3.1.), The cable modem periodically receives time messages from the CMTS and compares the time data in the TSI management messages with the previously stored value.

- creating and starting a configuration download task (TFTP configuration profile, page 71);

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creating and starting a simple-network-management protocol task (page 8, SNMP alert);

entering an operational state upon successful initialization of the network station and connectivity with the network (done),, and, while in the operational state, monitoring the tasks for messages (page 46, TSI management messages)

CMTRIS does not disclose the use of error messages, receiving error messages and initiating error recovery in response to the error messages, receiving request messages and sending request messages to a request message management task, and a centralized error handling state.

CMTRIS does not disclose an operational state configured to monitor for error messages and other messages communicated from other states and to communicate the error messages to the centralized error handling state and to send request messages to an Operational Support System Interface (OSSI) management task.

The OSSI specification discloses that a management agent is run on the cable modem (page 11-13, figure 2-1), details the OSSI messaging (page 13, provisioning and management protocols).

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify CMTRIS to utilize the OSSI management agent of OSSI specification, thus enabling remote administration of a cable modem.

The combination of CMTRIS and OSSI does not disclose an operational state configured to monitor for error messages and other messages communicated from

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other states and to communicate the error messages to the centralized error handling state.

The DAVIC Cable Modem specification discloses a centralized error handling state(pages 71-71, 91, and 99-101) which enables the network station manager to poll a number of cable modems, and monitors and reports errors from other states for the purposes of correcting them, thus enabling a device to correct errors and report problems in order to unsure that users receive their requested data.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS and OSSI to utilize the central error handling state of the DAVIC Cable Modem specification, thus enabling a device to correct errors and report problems in order to unsure that users receive their requested data.

Regarding claim 52, CMTRIS discloses that the DHCP process on the Cable Modem receives an IP address from a DHCP server (page 31).

Regarding claim 53, CMTRIS discloses that it receives a time of day message from a Time of day server and that its time is continuously updated throughout the day (page 46, section 4.3.1.) The cable modem periodically receives time messages from the CMTS and compares the time data in the TSI management messages with the previously stored value.

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Regarding claim 54, CMTRIS discloses that a configuration file is transmitted via TFTP (page 29).

CMTRIS, OSSI and DAVIC do not disclose sending a completion message when the download is completed or sending an error message.

The examiner takes official notice that sending a completion message when a transfer is complete or sending an error message is notoriously well known in the art. Sending completion messages enable networked devices to know whether or not data was successfully transmitted and error messages indicate if data was not received properly.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS, OSSI and DAVIC to send completion and error messages, thus enabling the networked devices to know whether or not data was successfully transmitted and error messages indicate if data was not received properly.

Regarding claim 55, CMTRIS discloses a changing the channel upstream/downstream to match a channel ID in the change upstream/downstream channel message (page 29, 34-35).

CMTRIS inherently sends request messages to a message management task as CMTRIS discloses that SNMP is used (page 8).

Regarding claim 56, CMTRIS discloses that the cable modem utilizes SNMP and communicates with SNMP managers (page 8, 29, 59).

Regarding claim 57, CMTRIS discloses the use of TFTP protocol (figure 3-2) which enables automatic downloads of data and software (page 71).

CMTRIS, OSSI and DAVIC are silent regarding responding to responding to a software upgrade message and reinitializing the network station upon completion of the software upgrade.

The examiner takes official notice that the use of a software upgrade message and reinitializing a device is notoriously well known in the art. For example, Microsoft's windows update, automatically detects what OS version a device is running and provides patches and update files to keep the OS up to date with system optimizations and security patches, additionally it requires the device to be rebooted in order for the changes to come into effect.

Therefore, it would have been obvious to one skilled in the art at the time of invention to modify the combination of CMTRIS, OSSI and DAVIC to utilize a software upgrade message and rebooting after an update is complete thus enabling a device to be kept up to date with system optimizations and security patches.

Regarding claim 58, CMTRIS discloses the use of TFTP protocol (figure 3-2) which enables automatic downloads of data and software (page 71).

OSSI discloses that the OSSI specification's management agent includes the use of TFTP (page 13).

CMTRIS, OSSI and DAVIC inherently communicate with an OSSI management task to start the software upgrade task as both teach the use of TFTP protocol, which provides automatic, downloads of software.

Regarding claim 59, CMTRIS discloses the use of OSSI (page 4) the use of TFTP (figure 3-2) and SNMP (figure 3-2).

OSSI discloses the use of an OSSI management task (page 11-13).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hunter B. Lonsberry whose telephone number is 571-272-7298. The examiner can normally be reached on Monday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Grant can be reached on 571-272-7294. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HBL

*HEZ*  
Hunter B. Lonsberry  
Patent Examiner  
Art Unit 2623